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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,842	08/02/2006	Kwang-Choon Chung	PLU-0012	6009

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CANTOR COLBURN, LLP  
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Hartford, CT 06103

EXAMINER
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PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
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1792

NOTIFICATION DATE	DELIVERY MODE
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01/29/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,842	<b>Applicant(s)</b> CHUNG ET AL.	
	<b>Examiner</b> Frederick J. Parker	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5,6,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5,6,12,13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Response to Amendment***

#### ***Specification***

The amendments in response to the Objections to the title and specification of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the objections.

#### ***Claim Objections***

The amendments in response to the Claim Objections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the objections. The new objections are necessitated by amendments.

1. Claims 5,6,12,13 are objected to because of the following informalities: 1) claims 5 & 6, at the end of each preamble, “for” should be replaced by “of ;” . line 1 of each, the phrase “A textile printing method applying ink jet printer” appears to be missing words . Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The amendments in response to the 35 USC 112 rejections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the rejections. The new rejections are necessitated by amendments.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5,6,12,13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claims 5,6 are vague and indefinite because 1) in the “applying” step, it is unclear if/how the jetting and the pretreatment head are related; 2) it is confusing that “a pretreatment liquid” is

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applied, but then the claim requires a reservoir with individual containers with multiple treatment compositions which appear to be applied, which is contradictory and inconsistent; for examination several components or compositions may be added to the fabric during pretreatment; 3) on line 3 of the applying step, it is unclear to which compositions the word "such" refers; in the applying step, it is unclear how the control unit is operated "depending upon the fabric material"; 4) in the wherein steps, it is unclear if "pretreatment liquid" is singular or plural, based on the comments above.

- Claims 12,13 are vague and indefinite because 1) it is unclear if/how the jetting and the pretreatment head of line 3 and 5-6, respectively, are related; 2) it is confusing that "a pretreatment liquid" is applied, but then the claim requires a reservoir with individual containers with multiple treatment compositions which all appear to be applied, which is contradictory and inconsistent; for examination several components or compositions are added to the fabric during pretreatment.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 5,6,12,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Miyaka US 6116728.

Nakamura pretreats a fabric using an ink jet application device inherently comprising an ink jet head [0069 and elsewhere]. The pretreatment solution contains multiple components as disclosed in [032; 059; etc], and provides the benefit of providing the fabric with color shade depth,

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minimal bleeding, and brilliance when ink jet printed [045-49]. Application of the pretreatment solution by ink jet or other print means is followed by a heat treatment [070; etc]. While the apparatus is not limited, nor are specifics of the ink jet apparatus disclosed.

Miyaka teaches an apparatus for continuously applying multiple liquids by ink jet onto fabrics. Col. 7, 30-col. 8, 33 and the 2<sup>nd</sup> embodiment (e.g. col. 20 and elsewhere) teaches applying pretreatment agent/s followed by drying and then printing and drying. Fabric B is continuously fed via fabric rollers 47,49, etc past the ink jet head 9, heating means 35, and printer 31, followed by additional heat means 46. It is apparent that there may be multiple types and colors of printings (col. 7, 65- col. 8, 33) with corresponding separate ink jet heads 9, coating supply devices 11, and conduits. The overall process is managed by computer with memory 110. Col. 20, 10-20 expressly discloses that “heads of the ...unit are supplied with different kinds of treatment agent to adapt to as variety of materials for the cloths”, which are applied and heat-treated prior to ink jet printing to provide the benefit of reduced bleeding, excellent sharpness and high definition of the ink jet printing (col. 3, 23-27), which is the same benefits of pretreating as disclosed by Nakamura (see above). Whether the different ingredients are separate or in one unit is simply a functionally equivalent variation which does not impart patentability to the apparatus since the variation would have merely been an obvious choice within the level of ordinary skill. Miyaka also teaches an apparatus to separately (consecutively or concurrently) apply plural fluids from separate reservoirs, conduits, printers, etc. Pre-treatment and ink/coating fluids are previously discussed. The ink jet recording unit may contain parallel guide rails 7,8 attached to a frame with a head carriage 10 comprising head 9. The positions of dryers are disclosed throughout the specification and fig. 2-3.

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It is the Examiner's position that concurrent or consecutive steps to carry out the process are obvious variants within the purview of one of ordinary skill and which would not provide patentable differences, absent a clear and convincing showing to the contrary. Further, changes in order of adding ingredients/ selection of order of process steps is prima facie obvious in the absence of new or unexpected results, MPEP 2144.04 C. There is no invention involved with the broad concept of performing simultaneously operations which previously have been performed in sequence, *In re Tatincloux* 108 USPQ 125.

Given the above, the prior art teaches a textile printing apparatus comprising feed rollers for transporting the fabric; pretreatment means comprising ink jetting; liquid reservoirs and jetting heads for pretreatment components as well as ink jet inks; dryers for heat treating pretreated fabric; and a control unit for the overall process. Thus the structure of the apparatus of claim 12 is met by the prior art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the process of Nakamura using the specific process and apparatus of Miyake which continuously ink jet prints multiple coating fluids to produce images with high definition/ sharpness and reduced streaking (col. 3, 23-28; 64-66; etc) while providing improved efficiency and cost-effectiveness over prior art processes.

### ***Response to Arguments***

Applicant's arguments have been fully considered. The substantive arguments are that in the newly amended claims the specifics of the pretreatment reservoir and the operation of the unit

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depending upon the fabric material are claimed, as well as either concurrent and/or consecutive steps.

Applicants assert the especially designed pretreatment reservoir having multiple compartments allows different compositions to be applied to different fabrics. This is not persuasive because Miyaka expressly discloses that “heads of the ...unit are supplied with different kinds of treatment agents to adapt to a variety of materials for the cloths”, which are applied and heat-treated prior to ink jet printing for the benefits cited. The argument that the claims now allow pretreatment and printing in a single process is not persuasive because there is no invention involved with the broad concept of performing simultaneously operations which previously have been performed in sequence, *In re Tatincloux* 108 USPQ 125. Thus absent a clear and convincing showing of patentability, such a variation would have been obvious.

Applicants argue Nakamura is silent as to apparatus features. The Examiner does not disagree and fashioned his 103 rejection in this and the previous Office Action based on the fact that the apparatus of Nakamura is not limited.

The new limitations and combinations of claims are fully rejected above. It remains the Examiner’s position that the current claims are rendered obvious over Nakamura in view of Miyaka.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Art Unit 1792

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